## SUMMARY WORK BREAKDOWN STRUCTURE

The following items are the report items for which Financial Management Reports (NASA form 533) are required monthly:

- 1.0 Total Program (summary)
- 1.1 Program Management
- 1.2 Systems Engineering
- 1.3 Command and Data Handling Subsystem
- 1.4 Telecommunications Subsystem
- 1.5 Attitude and Articulation Control Subsystem
- 1.6 Power Subsystem
- 1.7 Thermal Subsystem
- 1.8 Structure, Mechanisms and Harness
- 1.9 Propulsion Subsystem
- 1.10 Software Design and Development
- 1.11 Integration and Test
- 1.12 Quality Assurance and Quality Control
- 1.13 Ground Support Equipment
- 1.14 Spacecraft Test Laboratory
- 1.15 Launch Operations
- **1.16** Mission Operations

Each report item shall be expanded into subtasks. The proposer shall submit labor estimates for each of the expanded subtasks. A representative subtask format is as follows:

- 1.7 Thermal Subsystem
  - 1.7.1 Requirements

- **1.7.2 Design**
- 1.7.3 Fabrication
- 1.7.4 Test

The proposer shall also submit an expansion of the summary WBS in order to identify in more detail the activities in support of each subtask. Subtasks which are four weeks or less in duration or which pertain to man-loaded activities (level-of-effort) need not be expanded. Lower echelons of the expanded WBS shall define the elements of work and their interrelationships as conceived by the proposer. The lowest level of the expanded WBS shall consist of work item activities each of which cover a time span of approximately four weeks. Each element of the expanded WBS shall be coded numerically to reflect various levels of the WBS and to identify each element to the next higher level.